From: Tahir, Nadeem (FTA)

To: Rogers, Leslie (FTA); Day, Elizabeth (FTA); Ryan, James (FTA)

CC: Borinsky, Susan (FTA); Carranza, Edward (FTA); Libberton, Sean (FTA); James, Aaron (FTA);

Schruth, Susan (FTA); Ryan, James (FTA); Nguyen, Kim (FTA); Nutakor, Chris (FTA); Luu, Catherine

(FTA); Matley, Ted (FTA); Sukys, Raymond (FTA)

Sent: 9/28/2009 6:00:33 AM

Subject: RE: Honolulu

Jim: Below are points lifted out of the Jacobs Risk Assessment Spot report that Jacobs have pulled out as the most relevant for inclusion in a PE letter. Please include as appropriate. I can help you with more details and specifics if you need. Please let me know. Thanks.

Technical Capacity and Capability

- All key City management positions should be filled during in PE.
- Detailed staffing plans for the City and consultant staff should be developed for all remaining phases.
- City should update its PMP to completely bring it into conformance with FTA requirements.
- All professional services contracts (and any inter-local agreements for participatory services) should have quantifiable metrics for measuring the real status of work, both costs and schedule.
- A configuration management/change control mechanism has been developed per the PMP. This should be properly implemented during PE.

Project/Design Development

- A Memorandum of Understanding should be developed with the Hawaii Department of Transportation (HDOT).
- Resolution of the issue of proximity of the guideway to runways 22R/4L and 22L/4R at the Honolulu International Airport should be vetted with HDOT and the Federal Aviation Administration.
- Utility Agreements should be developed with private and public owners, including the military.
- Vehicle Basis of Design and functional sizing should be fully developed.
- Rail fleet size requirements should be determined.
- Final location of the Maintenance and Storage Facility (MSF) should be determined.
- Scope for the Administration Building and Operations Control Center should be fully developed.
- A technical paper should be prepared relative to constructability, permitting and maintenance of navigation rights as they relate to construction activities adjacent to waterways.
- A technical paper should be prepared and included in contract documents addressing Maintenance of Traffic, specifically with regard to construction inefficiencies and liabilities over live traffic (street and highways).
- Security Measures for the proposed system should be clearly developed.
- Vertical circulation requirements on station-by-station basis should be clearly developed.
- The City should determine a strategy for interim storage and maintenance of "test vehicles" until the MSF is sufficiently complete to accommodate the vehicles.
- Technology for fare collection should be selected.
- Scope for temporary and permanent easements should be developed.
- A preliminary contracting packaging plan has been developed. This plan should be finalized during PE since construction activities are anticipated to begin early in the project lifecycle. This plan should include a source selection plan(s) and contract specific work plans.
- Insurance methodology should be developed.

Schedule

- The Master Project Schedule (MPS) should be "baselined" early in the PE. The baseline should be used during subsequent monthly progress updates for variance reporting and to support the justification of recovery schedule efforts. Likewise, the City should incorporate schedule revisions to address any necessary means or methods of schedule recovery to account for any delays/schedule impacts realized to date.
- The utilization of manpower and equipment resource loading and budget/cost loading should be addressed.
- The MPS requires more activity detail for the following critical project components:

- O Utilities exploration, adjustment, abandonment and or relocation
- Real Estate Acquisitions identification, appraisals
- Systems Integration traction power, signals and communications, train control
- Startup and Testing
- Operational Commissioning and Training
- Vehicle Procurement procurement, design, manufacturing, delivery, testing
- Major Construction Material Procurements
- Right-of-way schedule should be developed.
- The WBS should be modified to cross over with the Project budget and cost breakdown structure once developed and implemented.
- The City should seek FTA review and comment on schedule activities that indicate "FTA Review".
- The City should incorporate schedule activity detail for early construction packages such as interagency agreements, early site-work packages, early utility adjustment packages, etc.
- The MPS should utilize multiple schedule calendars for various types of work related to the PE, final design, procurement and construction of varying types of work, especially during the construction phase.
- The MPS should allow more latent float contingency for construction contractor bid and award process for Design-Bid-Build and for Design-Build procurements to allow for bidding extensions, contract document addendums, etc.
- The City should develop and submit a schedule mitigation plan for at least three (3) months of schedule recovery for the following project milestones:
 - o Request to Enter Final Design
 - o FFGA Application, Review and Award Process
 - Open Farrington Section
 - Open East Kapolei Pearl Highlands
 - Open to Aloha Stadium
 - Open to Ala Moana Center
 - o Start-up and Testing (MSF)
 - o Start-up and Testing (entire project alignment)

Budget/Cost

- A detailed bottoms-up style Project Estimate should be developed and summarized to SCC format. The estimate should be detailed sufficiently to determine distribution between materials, labor, equipment and General Conditions Elements at a minimum. The soft cost estimates should be based on staffing plans, Force Account plans, contracts etc and not solely on percentages. The estimate should eliminate Parametric Style values, Cost Estimating Relationships and Lumps Sums as much as possible during PE.
- The estimate should be escalated in accordance with the MPS.
- The Basis of Estimate should provide more justification and backup documentation supporting the quantification and assumptions for the "soft costs" and related General Conditions for the Project.

Operations

- Preliminary operations plan should be developed.
- The responsible entity for state safety oversight in Hawaii should be determined.
- The City should ensure that the service velocity does not erode over the next course of design changes.
- The City should perform research and documentation on the actual Honolulu time-of-day and day-of-week travel patterns to substantiate the important peak hour factor. A review of weekend service requirements would also be helpful to ensure that adequate capacity is incorporated into the service design.
- The City should review and consider the minimum dwell time it uses to support its 20 second minimum dwell time assumptions. A review or update on the issues would be helpful, especially as Vancouver's Canada Line (a peer system) enters initial service.
- The City should review its minimum vehicle turnaround requirements. Four minutes may be excessive for an AGT system, based on existing services currently in operation.

Nadeem S. Tahir, P.E., CCM.
Director, Office of Program Management and Oversight
U.S.D.O.T. Federal Transit Administration, Region IX
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From: Rogers, Leslie (FTA)

Sent: Friday, September 25, 2009 11:58 AM

To: Day, Elizabeth (FTA)

Cc: Borinsky, Susan (FTA); Carranza, Edward (FTA); Libberton, Sean (FTA); James, Aaron (FTA); Schruth, Susan (FTA); Ryan,

James (FTA); Nguyen, Kim (FTA); Tahir, Nadeem (FTA); Nutakor, Chris (FTA); Luu, Catherine (FTA); Matley, Ted (FTA);

Sukys, Raymond (FTA) **Subject:** RE: Honolulu

Beth et. al.,

After a robust discussion with Susan Borinsky and Sean Libberton, I concurred with the notion that we "err on the side of caution" and include the suggested level of detail about the PMOC's findings outlined in Beth's email below. I am requesting that TPE share with us the approval letters sent to the project sponsors that accompanied the three approval memos you earlier provided us. For the NS team members it is noted that even our earlier drafts, which included any numbers of bullets, will need to be expanded to capture the needed level of detail. We are hopeful that the revised memo with the expanded level of detail can be completed by the early part of next week. Thanks all.

Leslie

From: Day, Elizabeth (FTA)

Sent: Friday, September 25, 2009 5:22 AM

To: Ryan, James (FTA); Nguyen, Kim (FTA); Tahir, Nadeem (FTA); Nutakor, Chris (FTA)

Cc: Borinsky, Susan (FTA); Rogers, Leslie (FTA); Carranza, Edward (FTA); Libberton, Sean (FTA); James, Aaron (FTA);

Schruth, Susan (FTA) **Subject:** RE: Honolulu **Importance:** High

Hi everyone

The Honolulu approval memo and letter are not yet ready for prime time. They are lacking the level of detail we include for all other projects on the PMOC's findings on cost, scope, schedule and technical capacity. Given that this is a mega-project and very contentious locally, it seems we should identify and spell out concerns just as we do for all other projects. To do otherwise would appear that we were somehow purposefully omitting information.

Below is example text showing a format with short bullets. Attached are examples for other recent PE approval memos to give you a sense of the level of detail normally included in these documents. Note some of these memos do not follow the format below because they were prepared up to 2 years ago.

Kim and Nadeem – please work together early this morning to come up with a succinct list of bullets addressing major concerns noted in the PMOC report. Hopefully Chris and Aaron can help review it as well. Work with Jim to get this incorporated into the memo so that we can begin the packaging and circulation.

EXAMPLE FORMAT

Scope, Schedule, Cost, and Technical Capacity

<Briefly describe the Project Management Oversight Contractor's (PMOC) review of the scope, schedule, and cost, as well as the project sponsor's technical capacity. Include the name of the PMOC and the date of the report. In four bulleted lists, include the PMOC's findings about scope, schedule, cost, and technical capacity. When discussing significant concerns identified by the PMOC, also explain why moving forward with the approval is recommended despite the concerns.>

A review of the Northside LRT project scope, schedule, and cost, as well as the technical capacity of the project sponsor, the Metropolitan Transit Authority (MTA), was performed FTA's Project Management Oversight Contractor (PMOC), Booz Allen and Hamilton. The PMOC issued a written report dated January 12, 2009. FTA and the PMOC believe the project meets the requirements for entry into PE and that MTA possesses the technical capacity and capability to implement the project. The cost, scope and schedule estimates appear reasonable at this stage of project development. The following lists highlight important findings that must be addressed during PE:

Project Scope

- § MTA should finalize the scope of the project (i.e. station locations) and ensure all costs are accounted for in the cost estimate.
- § MTA should develop the project drawings and design documents to a level in which a comparable, accurate estimate can be formulated.
- § MTA should refine the project scope to detail the needed intersection improvements along the corridor, including provisions of gates at critical crossings and additional fencing along the track alignment to improve safety.

Project Schedule

- § As soon as possible, MTA should fully develop and complete the project schedule to include realistic milestone dates, specific durations of all activities, and logic ties for a project of this size and complexity. This should include FTA's approval process through all phases of the project (PE, Final Design, Full Funding Grant Agreement, and construction, testing, and start-up).
- § MTA's project management team should establish an independent schedule in *Primavera* or other software as soon as possible to adequately track the project.

Project Cost

- § In general, the cost estimating process utilized industry-standard unit rate approaches, including determinations of rates through estimating guides, parametric methodologies, percentage allocations, and other approaches for application to appropriate estimate categories. Although the conceptual estimate appears reasonable, certain risks that have the potential to impact the overall project budget have been identified.
- § MTA should prepare a bottoms-up cost estimate based on expected quantities of the LPA scope.
- § The escalation for the project should be based on individual producer price index (PPI) escalation to commodity sectors (i.e. apply the steel PPI to all steel components and the cement PPI to all cement, etc.).
- § MTA should refine and update the project cost estimate to allocate costs to the appropriate Standard Cost Categories (SCCs).

Technical Capacity

- § Within 45 days of PE approval, MTA must complete a formal detailed staffing plan to demonstrate its intentions for hiring and position changes to ensure adequate oversight and management for the architectural and engineering contractor and project development.
- § Within 45 days of PE approval, MTA must procure architectural and engineering services.
- § Within 45 days of PE approval, MTA must submit an updated Project Management Plan (PMP) and associated sub-plans, including: Rail Fleet Management Plan, Real Estate Acquisition and Management Plan, Safety and Security Management Plan, Quality Assurance Program Plan, and Bus Fleet Management Plan.

- § MTA should determine if they will undertake a design/build or other project delivery method.
- § MTA should determine contract packaging methods for all service, construction, and owner-furnished equipment/material contracts required for the project.

From: Borinsky, Susan (FTA)

Sent: Friday, September 25, 2009 7:52 AM

To: Rogers, Leslie (FTA); Carranza, Edward (FTA); Libberton, Sean (FTA); James, Aaron (FTA); Schruth, Susan (FTA); Day,

Elizabeth (FTA); Ryan, James (FTA)

Subject: FW: Honolulu

Leslie, Ed, Sean, Aaron- and Beth-As you know, Regional, TPM and TPE staff have worked through the issues/problems and completed their reviews of the Honolulu PE approval package. Jim Ryan sent out the latest version around 11 PM yesterday for the final re-read and sign-off by TRO-9, TPM and TPE..

Any chance of our finalizing this by mid-day today? That would allow us to put the package into final version, run it to TCA, get it to Peter for sign-off, and maybe even issue the 10-day notice to the Hill today.

If there are any issues/problems, please let Beth, Jim and me know as soon as possible. Susan